

3.4 Technical data

3.4.1 HV unit HTZ 4, HTZ 8, HTZ 11

Code		HTZ 4	HTZ 8	HTZ 11
Recommended for building with heating capacity at -14°C outside temperature	KW max.	1 to 4	8	11
VENTILATION MODULE				
Air flow rate supply air/exhaust air	m³/h	70-350	70-350	70-350
Heat recovery from exhaust air with reverse flow duct heat exchanger	%	95	95	95
Externally available compression of supply air/exhaust air	Pa	100	100	100
Integrated fresh/exhaust air filter		EU 4 (G 4)	EU 4 (G 4)	EU 4 (G 4)
Optional pollen filter (fresh air)		EU 7 (G 7)	EU 7 (G 7)	EU 7 (G 7)
HEAT PUMP				
Operating limit air temperature	°C	-16 to +35	-20 to +35	-25 to +35
Max./min. Heat pump flow temperature	°C	55 / 25	55 / 25	55 / 25
Air flow rate outside air/outgoing air	m³/h	1500	3000	4200
Externally available compression of outside air/outgoing air	Pa	20	20	35
Recommended heating water flow rate / internal pressure loss (at dT 10K=approx. 0.1 better COP)	m³/h / bar	0.8 / 0.06	1.3 / 0.10	1.7 / 0.1
Heating water flow rate max. / internal pressure loss (at dT 5K)	m³/h / bar	1.6 / 0.20	2.5 / 0.32	3.4 / 0.29
Nominal heating capacity/coefficient of performance A7/W35	kW/COP	5.40 / 4.91	10.40 / 5.20	14.00 / 5.38
Nominal heating capacity/coefficient of performance A7/W45	kW/COP	5.10 / 3.92	9.60 / 3.84	13.00 / 3.94
Nominal heating capacity/coefficient of performance A2/W35	kW/COP	4.50 / 4.09	8.90 / 4.45	12.00 / 4.62
Nominal heating capacity/coefficient of performance A2/W45	kW/COP	4.30 / 3.58	8.30 / 3.32	11.30 / 3.42
Nominal heating capacity/coefficient of performance A-7/W35	kW/COP	3.20 / 3.37	6.80 / 3.40	9.20 / 3.41
Nominal heating capacity/coefficient of performance A-7/W45	kW/COP	3.10 / 2.82	6.50 / 2.60	8.80 / 2.59
Power consumption of scroll compressor A2/W35	kW	1.10	2.00	2.60
Refrigerant / filling quantity	Type / g	R134a/2000	R404a/2300	R404a/5000
DIMENSIONS, CONNECTIONS, WEIGHT				
Dimensions HxWxD	cm	160x65x75	191x65x75	191x65x95
Air connections supply air/exhaust air	DN	160	160	160
Air connections ventilation system outside air	DN	160	160	160
Air connection heat pump outside air/outgoing air	DN	400	600	600
Condenser-storage tank connections	DN	1 1/4" IT	1 1/4" IT	1 1/4" IT
Condensate connection (hose)	DN	3/4"	3/4"	3/4"
Weight	kg	approx. 200	approx. 230	approx. 250
ELECTRICAL CONNECTION				
Nominal current / protection	kW/A	5.88 / C16	7.54 / C16	10.51 / C25
Operating current / starting current scroll compressor	A	6 / 32	8 / 40	11 / 50
Voltage /frequency / protection class EN 60529	V/Hz/IP	400/50/20	400/50/20	400/50/20
SOUND LEVEL LpA at distance of 1 m at 100% HP+ventilation				
Noise emission housing	dB(A)	52	53	54
Duct "to outdoors" without silencer	dB(A)	68	72	70
Duct "to living area" (at 200 m³/h) without silencer	dB(A)	59	59	59
MISCELLANEOUS				
Housing		Sheet steel	Sheet steel	Sheet steel
Colour		white	white	white
Installation location		Indoors	Indoors	Indoors

A=outside air temperature W=flow temperature of heat pump

3.4.2 HV unit HTZ 15, HTZ 20

Code		HTZ 15	HTZ 20
Recommended for building with heating capacity at -14°C outside temperature	KW max.	15	22
VENTILATION MODULE			
Air flow rate supply air/exhaust air	m³/h	70-1150	70-1150
Heat recovery from exhaust air with reverse flow duct heat exchanger	%	95	95
Externally available compression of supply air/exhaust air	Pa	100	100
Integrated fresh/exhaust air filter		EU 4 (G 4)	EU 4 (G 4)
Optional pollen filter (fresh air)		EU 7 (G 7)	EU 7 (G 7)
HEAT PUMP			
Operating limit air temperature	°C	-25 to +35	-20 to +35
Max./min. Heat pump flow temperature	°C	55 / 25	55 / 25
Air flow rate outside air/outgoing air	m³/h	5200	5800
Externally available compression of outside air/outgoing air	Pa	40	60
Recommended heating water flow rate / internal pressure loss (at dT 10K=approx. 0.1 better COP)	m³/h / bar	2.1 / 0.10	3.0 / 0.15
Heating water flow rate max. / internal pressure loss (at dT 5K)	m³/h / bar	4.2 / 0.26	5.9 / 0.38
Nominal heating capacity/coefficient of performance A7/W35	kW/COP	17.50 / 5.30	24.40 / 5.42
Nominal heating capacity/coefficient of performance A7/W45	kW/COP	16.30 / 3.88	22.70 / 4.05
Nominal heating capacity/coefficient of performance A2/W35	kW/COP	15.00 / 4.55	20.90 / 4.64
Nominal heating capacity/coefficient of performance A2/W45	kW/COP	14.10 / 3.36	19.70 / 3.46
Nominal heating capacity/coefficient of performance A-7/W35	kW/COP	11.50 / 3.38	15.70 / 3.49
Nominal heating capacity/coefficient of performance A-7/W45	kW/COP	11.00 / 2.62	14.90 / 2.57
Power consumption of scroll compressor A2/W35	kW	3.30	4.50
Refrigerant / filling quantity	Type / g	R404a/7000	R404a/8400
DIMENSIONS, CONNECTIONS, WEIGHT			
Dimensions HxWxD	cm	191x87x136	191x87x136
Air connections supply air/exhaust air	DN	160x502	160x502
Air connections ventilation system outside air	DN	160x733	160x733
Air connection heat pump outside air/outgoing air	DN	600	600
Condenser-storage tank connections	DN	1 1/4" IT	1 1/4" IT
Condensate connection (hose)	DN	3/4"	3/4"
Weight	kg	approx. 270	approx. 300
ELECTRICAL CONNECTION			
Nominal current / protection	kW/A	12.23 / C32	12.23 / C32
Operating current / starting current scroll compressor	A	13 / 66	13 / 74
Voltage /frequency / protection class EN 60529	V/Hz/IP	400/50/20	400/50/20
SOUND LEVEL LpA at distance of 1 m at 100% HP+ventilation			
Noise emission housing	dB(A)	55	57
Duct "to outdoors" without silencer	dB(A)	70	75
Duct "to living area" (at 200 m³/h) without silencer	dB(A)	55	55
MISCELLANEOUS			
Housing		Sheet steel	Sheet steel
Colour		white	white
Installation location		Indoors	Indoors

A=outside air temperature W=flow temperature of heat pump

4.4 Technical data

4.4.1 Air-to-water heat pump LI 4, LI 8, LI 11

Code		LI 4	LI 8	LI 11
Recommended for building with heating capacity at -14°C outside temperature	KW max.	1 to 4	8	11
HEAT PUMP				
Operating limit air temperature	°C	-16 to +35	-20 to +35	-25 to +35
Max. heat pump flow temperature	°C	55 / 25	55 / 25	55 / 25
min. Heat pump flow temperature				
Air flow rate outside air/outgoing air	m³/h	1500	3000	4200
Externally available compression of outside air/outgoing air	Pa	20	20	35
Recommended heating water flow rate / internal pressure loss (at dT 10K=approx. 0.1 improved COP)	m³/h / bar	0.8 / 0.06	1.3 / 0.10	1.7 / 0.1
Heating water flow rate max. / internal pressure loss (at dT 5K)	m³/h / bar	1.6 / 0.20	2.5 / 0.32	3.4 / 0.29
Nominal heating capacity/coefficient of performance A7/W35	kW/COP	5.40 / 4.91	10.40 / 5.20	14.00 / 5.38
Nominal heating capacity/coefficient of performance A7/W45	kW/COP	5.10 / 3.92	9.60 / 3.84	13.00 / 3.94
Nominal heating capacity/coefficient of performance A2/W35	kW/COP	4.50 / 4.09	8.90 / 4.45	12.00 / 4.62
Nominal heating capacity/coefficient of performance A2/W45	kW/COP	4.30 / 3.58	8.30 / 3.32	11.30 / 3.42
Nominal heating capacity/coefficient of performance A-7/W35	kW/COP	3.20 / 3.37	6.80 / 3.40	9.20 / 3.41
Nominal heating capacity/coefficient of performance A-7/W45	kW/COP	3.10 / 2.82	6.50 / 2.60	8.80 / 2.59
Power consumption of scroll compressor A2/W35	kW	1.10	2.00	2.60
Refrigerant / filling quantity	Type / g	R134a/2000	R404a/2300	R404a/5000
DIMENSIONS, CONNECTIONS, WEIGHT				
Dimensions H/W/D	cm	108x65x75	139x65x75	169x65x75
Air connection heat pump outside air/outgoing air	DN	400	600	600
Condenser-storage tank connections	DN	1 1/4" IT	1 1/4" IT	1 1/4" IT
Condensate connection (hose)	DN	3/4"	3/4"	3/4"
Weight	kg	approx. 180	approx. 210	approx. 230
ELECTRIC CONNECTION				
Nominal current / protection	kW/A	5.88 / C16	7.54 / C16	10.51 / C25
Operating current / starting current scroll compressor	A	6 / 32	8 / 40	11 / 50
Voltage / frequency / protection class according to EN 60529	V/Hz/IP	400/50/20	400/50/20	400/50/20
SOUND LEVEL LpA at a distance of 1 m at 100% HP				
Noise emission housing	dB(A)	52	53	54
Duct "to outdoors" without silencer	dB(A)	68	72	70
MISCELLANEOUS				
Housing		Sheet steel	Sheet steel	Sheet steel
Colour		white	white	white
Installation location		Indoors	Indoors	Indoors

A=outside air temperature W=flow temperature of heat pump

4.4.2 Air-to-water heat pump LI 15, LI 20

Code		LI 15	LI 20
Recommended for building with heating capacity at -14°C outside temperature	KW max.	15	22
HEAT PUMP			
Operating limit air temperature	°C	-25 to +35	-20 to +35
Max. heat pump flow temperature	°C	55 / 25	55 / 25
min. Heat pump flow temperature			
Air flow rate outside air/outgoing air	m³/h	5200	5800
Externally available compression of outside air/outgoing air	Pa	40	60
Recommended heating water flow rate / internal pressure loss (at dT 10K=approx. 0.1 improved COP)	m³/h / bar	2.1 / 0.10	3.0 / 0.15
Heating water flow rate max. / internal pressure loss (at dT 5K)	m³/h / bar	4.2 / 0.26	5.9 / 0.38
Nominal heating capacity/coefficient of performance A7/W35	kW/COP	17.50 / 5.30	24.40 / 5.42
Nominal heating capacity/coefficient of performance A7/W45	kW/COP	16.30 / 3.88	22.70 / 4.05
Nominal heating capacity/coefficient of performance A2/W35	kW/COP	15.00 / 4.55	20.90 / 4.64
Nominal heating capacity/coefficient of performance A2/W45	kW/COP	14.10 / 3.36	19.70 / 3.46
Nominal heating capacity/coefficient of performance A-7/W35	kW/COP	11.50 / 3.38	15.70 / 3.49
Nominal heating capacity/coefficient of performance A-7/W45	kW/COP	11.00 / 2.62	14.90 / 2.57
Power consumption of scroll compressor A2/W35	kW	3.30	4.50
Refrigerant / filling quantity	Type / g	R404a/7000	R404a/8400
DIMENSIONS, CONNECTIONS, WEIGHT			
Dimensions H/W/D	cm	169x65x96	189x65x96
Air connection heat pump outside air/outgoing air	DN	600	600
Condenser-storage tank connections	DN	1 1/4" IT	1 1/4" IT
Condensate connection (hose)	DN	3/4"	3/4"
Weight	kg	approx. 250	approx. 280
ELECTRIC CONNECTION			
Nominal current / protection	kW/A	12.23 / C32	12.23 / C32
Operating current / starting current scroll compressor	A	13 / 66	13 / 74
Voltage / frequency / protection class according to EN 60529	V/Hz/IP	400/50/20	400/50/20
SOUND LEVEL LpA at a distance of 1 m at 100% HP			
Noise emission housing	dB(A)	55	57
Duct "to outdoors" without silencer	dB(A)	70	75
MISCELLANEOUS			
Housing		Sheet steel	Sheet steel
Colour		white	white
Installation location		Indoors	Indoors

A=outside air temperature W=flow temperature of heat pump

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